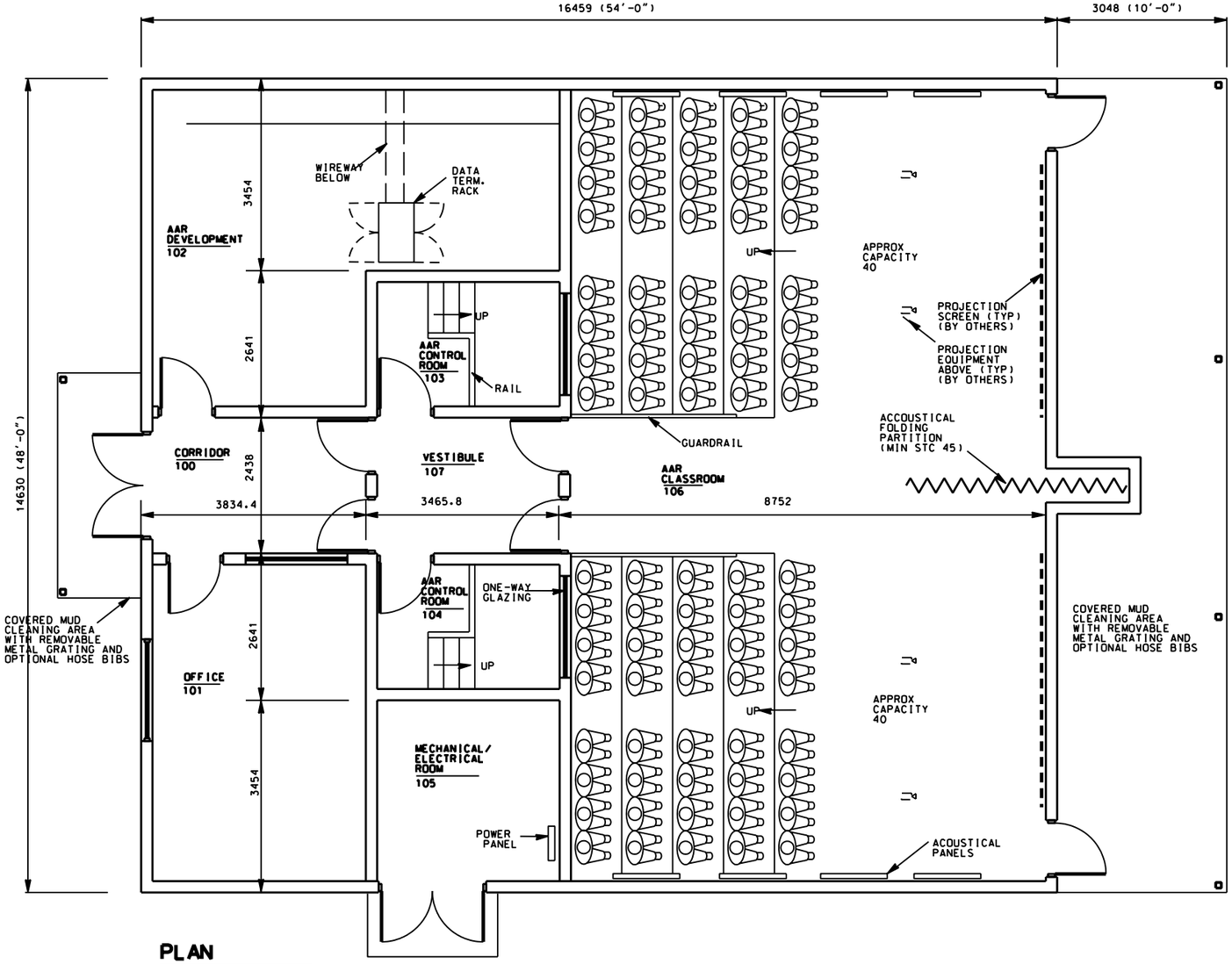
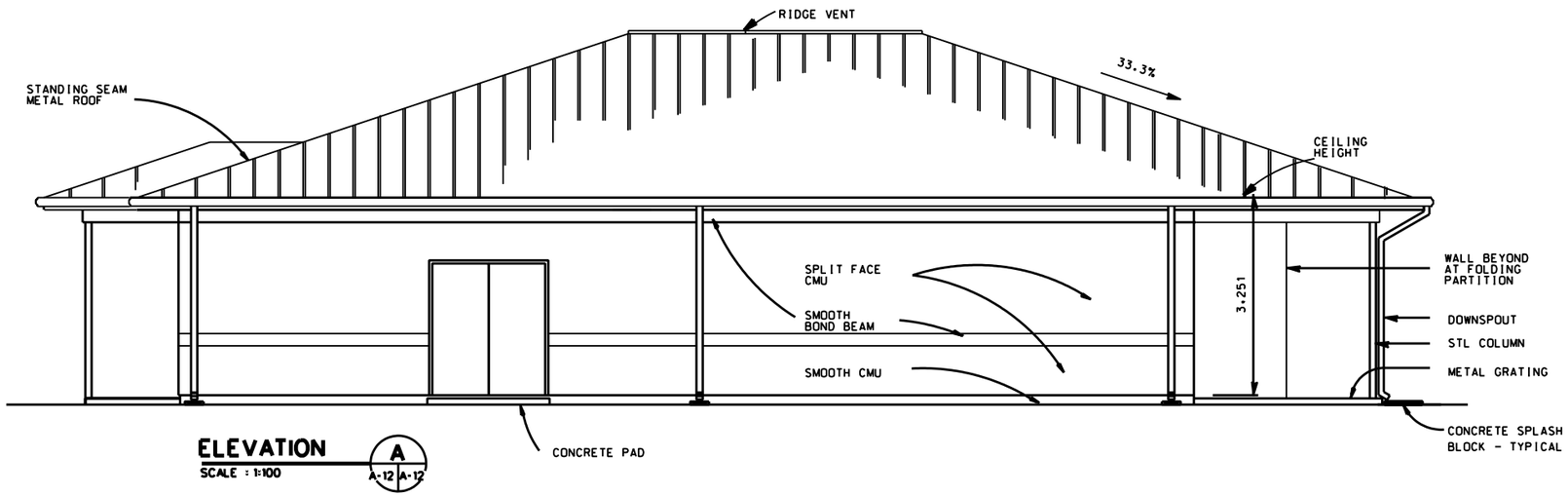


PLAN

SCALE : 1:100



ELEVATION

SCALE : 1:100

A (A-12 | A-12)

GENERAL

The Large After Action Review (AAR) facility provides space for personnel to review training exercises. Space is also provided for the installation of required electronics and communications equipment to prepare the review presentations and control rooms to monitor the presentations. An optional covered area for gear cleaning can be provided. The occupant load factor is 9.3 net sq. meters (100 sq. feet) (per person) for the development room, control room, offices. The occupant load for the classroom is 100 based on an assembly occupancy, less concentrated use, without fixed seating. See NFPA 101 table 7.3.1.2.

All dimensions not labeled are in millimeters.

SITE ADAPTATION

This standard definitive design should be adapted to local conditions such as climate, available construction materials and techniques, topography, seismic zone, the existing character of surrounding buildings and the local Installation Design Guide. These factors may affect plans, elevations and building systems. The building foundation must be designed based on the results of a geotechnical investigation.

REFERENCE CRITERIA

The design and construction must comply with applicable codes and standards including: technical instruction TI 800-01, "Design Criteria"; Department of the Army regulations, technical manuals, handbooks, standards, and specifications.

FUNCTIONAL REQUIREMENTS

A folding partition is provided in the classroom to provide the option for two smaller classrooms. Where topography allows viewing down range from the control room, windows can be placed above the counter. Windows are double hung to meet functional requirements providing viewing, natural light and ventilation. Windows have forced entry resistant metal frames and are provided with insect screens. Provide polycarbonate security glazing in windows and doors. One way glazing is provided between the control rooms and the classroom. Floors should be sealed concrete or vinyl tile for ease of cleaning, with acoustical drop ceilings.
Gutters, downspouts and splash blocks should be provided where required by climatic conditions. Covered entries and ice guards may be necessary in northern climates. The AAR is accessed only by able-bodied personnel and does not require ADA compliance unless dictated by local criteria.

MECHANICAL

The Mechanical Equipment shall be selected and sized based on site requirements, local weather design criteria, available energy sources, and building construction materials. The mechanical system must maintain an equipment operating temperature of 16 C to 27 C (60 F to 80 F) in rooms containing communication equipment. Obtain communication equipment heat release from targetry supplier for HVAC load calculations and equipment sizing. HVAC design for personnel comfort shall be in accordance with UFC 3-410-01FA. U-Factor requirements are based on the local climatic conditions in accordance with TI 800-1. Install appropriate heating and air conditioning equipment in the mechanical room with fans, ductwork, and controls. Route ductwork to provide an even distribution of conditioned air throughout the building to meet occupant comfort and outdoor air requirements. Provide diffusers and dampers to allow for manual balancing.

ELECTRICAL

The AAR requires 120V served by either 1 phase or 3 phase source. Rigid steel conduit shall extend a minimum of 1524mm (5') outside of the building foundation for power and communication circuits entering and leaving the building. Voltage drop shall comply with standards in NEC and Army technical manuals. Grounding will be installed in accordance with NFPA 70, the NEC, and other applicable standards.
The panelboards shall be recess mounted in finished areas. Receptacles shall be general purpose, 120V, 20A Duplex mounted 450mm (18") above the finished floor. All outlets, receptacles, and conduit shall be recess mounted in finished areas. Provide 120V, 20A duplex receptacle mounted to ceiling near each projector and mount a 120V, 20a duplex receptacle in a convenient location for each projection screen. Provide efficient power for the HVAC unit.
Illumination levels will be designed in accordance with IES. Interior lighting shall consist of fluorescent lamps at a level of 50 foot-candles with dimmer control. Incandescent fixtures with red lamps on separate switching shall be placed near each fluorescent lamp in the AAR and on exterior walls of entrance. Exterior lighting shall be
provided with separate switching located near points of egress.
The emergency electrical system shall comply with NFPA 70 and NFPA 101. Emergency lighting shall be provided to ensure adequate illumination to egress building in the event of a power outage.
Lightning protection is required for this building in the form of either mast protection or air terminals on the building.

TELEPHONE

Telephone service is not a requirement for range operations. However, service should be provided to the ROC if it is available in the area.

TARGETRY SYSTEM INTERFACE

A fiber optic connection is required between the ROC and the AAR. The size of the Fiber Termination Rack depends on the type of range and the number of targets. Coordinate with the Targetry Supplier.

FIRE PROTECTION

Fire protection is not required per fire codes for this building. Consult local Fire Marshall for compliance with local requirements.

GRAPHIC SCALES

1:100 — 1000 500 0 1000 2000

US Army Corps of Engineers

Rev.	Description	Date	Approved
*			

Date:
Design file no.
Drawing code:
File name:
Plot scale:
Plot code:
Designed by:
Drawn by:
Coded by:
Reviewed by:
Submitted by:

U.S. ARMY ENGINEERING AND SUPPORT CENTER, HUNTSVILLE
HUNTSVILLE, ALABAMA

15 APR. 2005

RANGE AND TRAINING LAND PROGRAM
STANDARD DESIGN MANUAL
AFTER ACTION REVIEW (AAR)
LARGE

Sheet reference number:
A-12